

United States Patent [19] Von Schroeter et al.



US006161232A

[11] Patent Number: 6,161,232
[45] Date of Patent: Dec. 19, 2000

- [54] **INVALID LIFTING DEVICE**
[75] Inventors: Philip Von Schroeter, Gloucester;
John Greaves, Hampshire, both of
United Kingdom
[73] Assignee: Arjo Limited, Gloucester, United
Kingdom

323921 1/1929 United Kingdom .
1159776 5/1968 United Kingdom .
2184706 7/1987 United Kingdom .
2 306 941 5/1997 United Kingdom .
2327931 2/1999 United Kingdom .
2337030A 11/1999 United Kingdom .
WO 95/12514 5/1995 WIPO .

- [21] Appl. No.: 09/321,723
[22] Filed: May 28, 1999
[30] Foreign Application Priority Data
May 30, 1998 [GB] United Kingdom 9811562
[51] Int. Cl.⁷ A61G 7/14
[52] U.S. Cl. 5/86.1; 5/83.1
[58] Field of Search 5/86.1, 83.1, 81.1 R

References Cited

U.S. PATENT DOCUMENTS

2,234,483	3/1941	Sutton	5/86.1
2,498,853	2/1950	Massold et al.	5/86.1
2,666,930	1/1954	Lenahan	5/86.1
3,099,020	7/1963	Garfield et al.	5/81.1 R
3,620,176	6/1974	Feiertag	
4,719,055	1/1988	Denn	5/81.1 R
4,939,801	7/1990	Schaal et al.	5/86.1
5,853,015	12/1998	Evans	5/86.1
6,047,418	4/2000	Seide et al.	5/83.1

FOREIGN PATENT DOCUMENTS

424344 A1 4/1991 European Pat. Off. .

Primary Examiner—Alexander Grosz
Attorney, Agent, or Firm—Young & Thompson

[57] ABSTRACT

The invalid lifting device comprises a first mast upstanding from a first elongate chassis member and a second mast upstanding from a second elongate chassis member which is parallel or substantially parallel to the first chassis member. The lifting device also comprises a lifting arm supported by and extending between the first and second masts, the lifting arm comprising two parts pivotable relative to one another so that the distance between the masts can be varied. One part is supported by the first mast and the other part is supported by the second mast. Power operated means are provided for moving the two chassis members towards and away from one another. Each part of the lifting arm comprises a parallelogram linkage to maintain the chassis members in parallel or substantially parallel relationship as the two chassis members are moved towards and away from one another. Each mast may be telescopically extendible/retractable and power operated means may be provided for extending and retracting the two masts in synchronism with one another.

19 Claims, 5 Drawing Sheets

